

Ralucca Gera, Ph.D.

Department of Applied Mathematics

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EDUCATION

2005 PhD. in Mathematics, Western Michigan University, Kalamazoo, MI 49008.

Area: Graph theory.

Thesis: *Stratification and Domination in Graphs and Digraphs*, defended Nov. 2004.

Advisor: Professor Dr. Ping Zhang.

2002 M.A. in Mathematics, Western Michigan University, Kalamazoo, MI 49008.

Area: Pure Mathematics.

2000 B.S. in Mathematics, Western Michigan University, Kalamazoo, MI 49008.

Magna Cum Laude, Honors in Mathematics.

Area: Major in Mathematics, Minor in Statistics.

PROFESSIONAL EXPERIENCE

2004-2005 Dissertation Completion Fellowship, The Graduate College, Western Michigan University.

2002-2004 Alavi Graduate Teaching Assistantship, Department of Mathematics, Western Michigan University.

2000-2002 GAANN Fellowship (Graduate Assistance in Areas of National Need), Department of Mathematics and Statistics, Western Michigan University.

1999-2000 Doctoral Teaching Associateship, The Graduate College, Western Michigan University.

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| 1998 | Research Experience for Undergraduates (REU) at Hope College. |
| 1997-1999 | Undergraduate Teaching Assistantship, Department of Mathematics and Statistics, Western Michigan University. |
| 1996-1997 | Tutor, Department of Mathematics and Statistics, Western Michigan University. |

ACTIVITIES RELATED TO RESEARCH

PUBLICATIONS

1. On Geodomination in Graphs. Muntean, Raluca; Zhang, Ping; *Congr. Numer.* 143 (2000) 161-174.
2. A Length Inequality for One-dimensional Local Rings. Delfino, Donatella; Leer, Leanne; Muntean, Raluca; *Communications in Algebra* 28 (2000) no. 5, 2555-2564.
3. Which Graphs are Divisor Graphs. Chartrand, Gary; Gera, Ralucca; Saenpholphat, Veraporn; Zhang, Ping; *Congr. Numer.* 151 (2001) 189-200.
4. k-geodomination in Graphs. Muntean, Raluca; Zhang, Ping; *Ars Combin.* 63 (2002) 33-47.
5. On k-geodomination in Cartesian Products. Gera, Ralucca; Zhang, Ping; *Congr. Numer.* 158 (2002) 163-178.
6. Divisor Graphs with Triangles. Gera, Ralucca; Zhang, Ping; Saenpholphat, Veraporn; *Congr. Numer.* 160-165 (2003).
7. Bounds for the F-domination Number of a Graph. Gera, Ralucca; Zhang, Ping; *Congr. Numer.* 166 (2004) 131-144.
8. Realizable triples for stratified domination in graphs. Gera, Ralucca; Zhang, Ping; *Math Bohem.* 130 (2005) 185-202.
9. Gera, Ralucca and Zhang, Ping, Stratified domination in oriented graphs. *J. Combin. Math. Combin Comput.* Accepted

RESEARCH GRANTS

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| 2005 | Graduate Research Travel Grant, The Graduate College, Western Michigan University. |
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- 2004 Graduate Research Travel Grant, The Graduate College, Western Michigan University.
- 2003 Graduate Research Travel Grant, Graduate Student Advisory Committee, Western Michigan University.
- 2000 Graduate Research Travel Grant, The Graduate College, Western Michigan University.

PRESENTATIONS AT PROFESSIONAL MEETINGS

1. Stratified Domination in Graphs, Midwest Graph Theory Conference (MIGHTY XL) in Saginaw, MI, April 17th 2005
2. Stratified Domination in Digraphs, The Thirty-sixth Southeastern International Conference on Combinatorics, Graph Theory, and Computing in Boca Raton, FL, March 7-11th, 2005
3. Stratified Domination in Graphs, Joint Mathematics Meeting in Atlanta, GA, January 5-8th, 2005
4. Stratified Domination in Graphs, Midwest Graph Theory Conference at Ball State University, Nov. 2004.
5. On Stratification and Domination in Graphs, The 17th Cumberland Conference on Graph Theory, Combinatorics and Computing at Middle Tennessee State University, May 2004.
6. On F-domination in Stratified Graphs, The Thirty-Fifth Southeastern International Conference on Combinatorics, Graph Theory, and Computing at Florida Atlantic University, Mar. 2004.
7. Divisor Graphs, The Thirty-Third Southeastern International Conference on Combinatorics, Graph Theory, and Computing at Florida Atlantic University, Mar. 2003.
8. On K-Geodomination in Graphs, The Thirty-third Southeastern International Conference on Combinatorics, Graph Theory, and Computing at Florida Atlantic University, Mar. 2002.
9. Which Graphs are Divisor Graphs, The Thirty-Second Southeastern International Conference on Combinatorics, Graph Theory, and Computing at Louisiana State University, Feb. 2001.

10. On Geodomination in Graphs, The Thirty-First Southeastern International Conference on Combinatorics, Graph Theory, and Computing at Florida Atlantic University, Mar. 2000.
11. A Length Inequality in Complete Numerical Semigroup Rings, joint algebra talk with Leanne Leer at the San Antonio International Conference, Jan. 1999.

OTHER PRESENTATIONS

1. Professional Development Week for Graduate Students, Western Michigan University, Mar. 2005.
2. Teaching workshop for the Graduate Teaching Assistants Training, Western Michigan University, Aug. 2004.
3. Panel presenter for the Graduate Student Training, Western Michigan University, Aug. 2004.
4. Panel presenter for the Mathematics Graduate Teaching Assistants Training, Western Michigan University, Aug. 2004
5. Stratification and Domination in Graphs and Digraphs, Graph Theory Seminar, Western Michigan University, Apr. 2003.
6. On K-Geodomination in Graphs, Graph Theory Seminar, Western Michigan University, Feb. 2002.
7. The Graduate Programs in Mathematics at Western Michigan University, Fourth Annual Michigan Undergraduate Mathematics Conference, Calvin College, Feb. 2002.
8. Domination in Graphs, Graph Theory Seminar, Western Michigan University, Dec. 1999.
9. Semigroup Rings, Pi Mu Epsilon talk, Western Michigan University, Sept. 1998.
10. The Money Changing Problem, Pi Mu Epsilon talk, St. Norbert College, WI, Nov. 1998.
11. Research Experience for Undergraduates, seminar talk, Hope College, MI, Sept. 1998.

OTHER

1. 19th Annual 2002 National Conference of National Association of Graduate and Professional Students (NAGPS); Pittsburgh, Nov. 2004.
2. Lobbied on behalf of NAGPS in D.C. as part of the Grad-Tax Jun. 2004 Lobby Conference of National Association of Graduate and Professional Students (NAGPS); Washington, D.C., Jun. 2004.

3. 17th Annual 2002 National Conference of National Association of Graduate and Professional Students (NAGPS); St. Louis, Nov. 2002.
4. 2002 Midwest Regional Conference of National Association of Graduate and Professional Students (NAGPS); Western Michigan University, Mar. 2002.

ACTIVITIES RELATED TO INSTRUCTION

COURSES TAUGHT

1. Excursions in Mathematics, Western Michigan University, Fall 1997, Winter 1998, Fall 1998, Winter 1999 (undergraduate recitation instructor: Graded homework and quizzes, held office hours, prepared group work activities.)
2. Intermediate Algebra I, Western Michigan University, Fall 1999 (instructor of record: Prepared lectures, held office hours, assigned and graded homework.)
3. Intermediate Algebra II, Western Michigan University, Winter 2000 (instructor of record)
4. Precalculus, Western Michigan University, Fall 2000, Winter 2001 (instructor of record)
5. Discrete Mathematics, Western Michigan University, Fall 2001, Winter 2002, Fall 2002 (instructor of record)
6. Mathematical Proofs, Western Michigan University, Spring 2003 (instructor of record)
7. Calculus 1, Western Michigan University, Fall 2003 (instructor of record)
8. Calculus 2, Western Michigan University, Spring 2004 (instructor of record; participated in curricular discussions and decisions.)
9. Finite Mathematics for Operations Research, Naval Postgraduate School, Summer 2005 (instructor of record)

BOARD AND COMMITTEE SERVICE

DEPARTMENT SERVICE

2005-2006	Chair Search Committee Member, Naval Postgraduate School.
2005-2006	Colloquia and Seminars Coordinator, Naval Postgraduate School.
2004-2005	Web Coordinator to Pi Mu Epsilon Mathematics Honorary Society.
2004-2005	Mathematics Graduate Student Mentor.
2003	Web Coordinator to Pi Mu Epsilon Mathematics Honorary Society.
2003-2004	Mathematics Graduate Student Mentor.
2003-2004	Coordinator talks for the History of Mathematics Seminar.
2003	Graduate Representative to Pi Mu Epsilon Mathematics Honorary Society.
2002-2003	Student Representative to the Graduate Mathematics Committee.
2002-2003	Organized and directed mathematical talks for the History of Mathematics Seminar.
2002-2003	Graduate Representative to Pi Mu Epsilon Mathematics Honorary Society.
2001-2002	Student Representative to the Graduate Mathematics Committee.
2000-2001	Student Representative to the Undergraduate Mathematics Committee.
1999-2000	Honorary President, Pi Mu Epsilon Mathematics Honorary Society.
1999-2000	President, Pi Mu Epsilon Mathematics Honorary Society.
1998-1999	Treasurer, Pi Mu Epsilon Mathematics Honorary Society.

UNIVERSITY SERVICE (Western Michigan University)

2004-2005	Chair of the Public Relation Graduate Student Advisory Committee.
2004-2005	Graduate Student Representative to the University Assessment Steering Committee.
2004-2005	Mathematics Department Graduate Student Representative to the Graduate Student Advisory Committee.
2004	Graduate Student Representative to the Student Information System Policy Governance Committee.

2003-2004	Mathematics Department Graduate Student Representative to the Graduate Student Advisory Committee.
2003	Technology Committee Graduate Student Representative.
2002-2003	Chair of the Graduate Financial Advisory Committee.
2002-2003	Mathematics Department Graduate Student Representative to the Graduate Student Advisory Committee.
2001-2002	Mathematics Department Graduate Student Representative to the Graduate Student Advisory Committee.

NATIONAL SERVICE

2005	Michigan Graduate Student Conference Coordinator.
2004-2005	Michigan Coordinator to National Association of Graduate and Professional Students.
2004-2005	Midwest Regional Coordinator to Employment Concerns Committee, National Association of Graduate and Professional Students.
2000	Conference Assistant, The Ninth International Conference on Graph Theory, Combinatorics, Algorithms, and Applications at Western Michigan University.

HONORS AND AWARDS

2004	Pi Mu Epsilon Honors, Department of Mathematics, Western Michigan University
2003	Graduate Student Teaching Effectiveness Award, Department of Mathematics, Western Michigan University
2003	Graduate Research and Creative Scholars Award, Department of Mathematics, Western Michigan University
2003	Pi Mu Epsilon Honors, Department of Mathematics, Western Michigan University

2002	Charles H. Butler Excellence in Teaching Award, Department of Mathematics, Western Michigan University
2001	Graduate Research Award, Arts and Science College, Western Michigan University
2001	Who's Who Among Students in American Universities and Colleges, Western Michigan University
2000	Pi Mu Epsilon Honors, Department of Mathematics and Statistics, Western Michigan University
2000	Undergraduate Research Award, Arts and Science College, Western Michigan University
2000	Putnam Exam Honors, Department of Mathematics and Statistics, Western Michigan University
2000	Research Travel Award, College of Arts and Sciences, Western Michigan University
1999	Undergraduate Research Award, Department of Mathematics and Statistics, Western Michigan University
1999	Phi Beta Kappa Honors, Department of Mathematics and Statistics, Western Michigan University
1999	Bruce Clarke Senior Award, Department of Mathematics and Statistics, Western Michigan University
1999	Graduation with Honors in Mathematics, Department of Mathematics and Statistics, Western Michigan University
1999	Undergraduate Research and Creative Activities Award, College of Arts and Sciences, Western Michigan University ("Generalization of Length Inequality" with Professor John Petro.)
1998	Putnam Exam Honors, Department of Mathematics and Statistics, Western Michigan University
1998	Robert Meagher Memorial Scholarship Award, Department of Mathematics and Statistics, Western Michigan University
1998	Undergraduate Research Award, Department of Mathematics and Statistics, Western Michigan University

- 1998 Undergraduate Research and Creative Activities Award, College of Arts and Sciences, Western Michigan University (“Units in Rings of Algebraic and Finite Group Rings” with Professor Joseph Buckley.)
- 1998 Fred A. Beeler Memorial Scholarship, Department of Mathematics and Statistics, Western Michigan University

PROFESSIONAL AFFILIATIONS

American Mathematics Society.

Association for Women in Mathematics.

Mathematical Association of America.

National Association of Graduate and Professional Students.

Phi Beta Kappa.

Pi Mu Epsilon.

Society for Industrial and Applied Mathematics

COMPUTER SKILLS

Applications: Latex, Microsoft Office, Macromedia Dreamweaver, WinFIG(XFig), PSP.

Operating systems: Windows, Macintosh.

REFERENCES

The following professors are familiar with my professional qualifications and my personality:

Ping Zhang, Ph.D.

Associate Professor

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Gary Chartrand, Ph.D.
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